

WHAT IS CLAIMED IS:

1. An apparatus for creating image processing program, comprising:
  - a program selecting unit that selects at least one watermarking program from among a plurality of watermarking programs for inserting electronic watermark data into moving image data that are encrypted, compressed, or both encrypted and compressed;
  - an area selecting unit that selects at least one area for inserting the selected program from among a plurality of areas in a processing program that performs decrypting, expanding, or both decrypting and expanding the moving image data; and
  - a program inserting unit that inserts the watermarking program selected into the area selected.
- 15 2. The apparatus according to claim 1, wherein  
the program selecting unit selects the watermarking program at random, and  
the area selecting unit selects the area at random.
- 20 3. The apparatus according to claim 1, wherein the electronic watermark data include information unique to an image processing apparatus that executes the processing program.
- 25 4. The apparatus according to claim 1, wherein the electronic watermark data include a unique number of a tamper resistant module

composing an image processing apparatus that executes the processing program, and the unique number encrypted by a unique encryption key of the tamper resistant module.

- 5    5.      The apparatus according to claim 1, further comprising:
  - a parameter determining unit that randomly determines a parameter necessary to operate the watermarking program selected.
- 10    6.      The apparatus according to claim 1, further comprising:
  - a program rewriting unit that rewrites a jump destination specified by a jump instruction in the processing program from any one of the watermarking programs inserted by the program inserting unit into another watermarking program.
- 15    7.      The apparatus according to claim 6, wherein the program rewriting unit rewrites the jump destination during an execution of the processing program.
- 20    8.      A method of creating image processing program, comprising:
  - selecting at least one watermarking program from among a plurality of watermarking programs for inserting electronic watermark data into moving image data that are encrypted, compressed, or both encrypted and compressed;
  - selecting at least one area from among a plurality of areas in a processing program that performs decrypting, expanding, or both

decrypting and expanding the moving image data; and  
inserting the watermarking program selected into the area  
selected.

5    9.    The method according to claim 8, wherein  
            the selecting at least one watermarking program includes  
            selecting the watermarking program at random, and  
            the selecting at least one area includes selecting the area at  
            random.

10    10.   The method according to claim 8, wherein the electronic  
            watermark data include information unique to an image processing  
            apparatus that executes the processing program.

15    11.   The method according to claim 8, wherein the electronic  
            watermark data include a unique number of a tamper resistant module  
            composing an image processing apparatus that executes the  
            processing program, and the unique number encrypted by a unique  
            encryption key of the tamper resistant module.

20    12.   The method according to claim 8, further comprising:  
            determining randomly a parameter necessary to operate the  
            watermarking program selected.

25    13.   The method according to claim 8, further comprising:

rewriting a jump destination specified by a jump instruction in the processing program from any one of the watermarking programs inserted by the program inserting unit into another watermarking program.

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14. The method according to claim 13, wherein the rewriting is performed during an execution of the processing program.

15. A computer program for creating image processing program, 10 making a computer execute:

selecting at least one watermarking program from among a plurality of watermarking programs for inserting electronic watermark data into moving image data that are encrypted, compressed, or both encrypted and compressed;

15 selecting at least one area from among a plurality of areas in a processing program that performs decrypting, expanding, or both decrypting and expanding the moving image data; and

inserting the watermarking program selected into the area selected.

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16. The computer program according to claim 15, wherein the selecting at least one watermarking program includes selecting the watermarking program at random, and the selecting at least one area includes selecting the area at random.

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17. The computer program according to claim 15, wherein the electronic watermark data include information unique to an image processing apparatus that executes the processing program.

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18. The computer program according to claim 15, wherein the electronic watermark data include a unique number of a tamper resistant module composing an image processing apparatus that executes the processing program, and the unique number encrypted by 10 a unique encryption key of the tamper resistant module.

19. The computer program according to claim 15, further making the computer execute:

15 determining randomly a parameter necessary to operate the watermarking program selected.

20. The computer program according to claim 15, further making the computer execute:

20 rewriting a jump destination specified by a jump instruction in the processing program from any one of the watermarking programs inserted by the program inserting unit into another watermarking program.

21. The computer program according to claim 20, wherein the 25 rewriting is performed during an execution of the processing program.